

DAILY EPIDEMIOLOGICAL SUMMARY

COVID-19 in Ontario: January 15, 2020 to May 3, 2021

This report includes the most current information available from CCM as of May 3, 2021.

Please visit the interactive <u>Ontario COVID-19 Data Tool</u> to explore recent COVID-19 data by public health unit, age group, sex, and trends over time.

A weekly summary report is available with additional information to complement the daily report.

This **daily** report provides an epidemiologic summary of recent COVID-19 activity in Ontario. The change in cases is determined by taking the cumulative difference between the current day and the previous day.

Highlights

- There are a total of 476,692 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
 - An increase of 2,791 confirmed cases (percent change of -18.8%)
 - An increase of 25 deaths (percent change of 56.3%)
 - An increase of 3,323 resolved cases (percent change of -8.3%)

In this document, the term 'change in cases' refers to cases publicly reported by the province for a given day. Data corrections or updates can result in case records being removed and or updated from past reports and may result in subset totals for updated case counts (i.e., age group, gender) differing from the overall updated case counts.

The term public health unit reported date in this document refers to the date local public health units were first notified of the case.

Case Characteristics

Table 1a. Summary of recent confirmed cases of COVID-19: Ontario

	Change in cases May 2, 2021	Change in cases May 3, 2021	Percentage change May 3, 2021 compared to May 2, 2021	Cumulative case count as of May 3, 2021
Total number of cases	3,436	2,791	-18.8%	476,692
Number of deaths	16	25	+56.3%	8,143
Number resolved	3,623	3,323	-8.3%	432,109

Note: The number of cases publicly reported by the province each day may not align with case counts reported to public health on a given day; public health unit reported date refers to the date local public health was first notified of the case. Data corrections or updates can result in case records being removed and or updated from past reports.

Table 1b. Summary of recent confirmed cases of COVID-19 by age group and gender: Ontario

	Change in cases May 2, 2021	Change in cases May 3, 2021	Cumulative case count as of May 3, 2021
Gender: Male	1,670	1,381	236,751
Gender: Female	1,754	1,357	236,276
Ages: 19 and under	684	469	73,793
Ages: 20-39	1,351	1,199	176,202
Ages: 40-59	977	778	137,578
Ages: 60-79	360	306	65,287
Ages: 80 and over	61	40	23,720

Note: Not all cases have a reported age or gender reported. Data corrections or updates can result in case records being removed and or updated from past reports and may result in subset totals (i.e., age group, gender) differing from past publicly reported case counts.

Data Source: CCM

Table 2. Summary of recent confirmed cases of COVID-19 in school aged children by age group, August 30, 2020 to May 3, 2021: Ontario

	Change in cases May 2, 2021	Change in cases May 3, 2021	Cumulative case count from August 30, 2020 to May 3, 2021
Ages: 4 to 8	126	101	13,423
Ages: 9 to 13	145	105	17,308
Ages: 14 to 17	180	110	17,332

Note: Includes all confirmed cases of COVID-19 for specified ages, regardless of school attendance. Data corrections or updates can result in case records being removed and or updated from past reports and may result in subset totals (i.e., age group) differing from past publicly reported case counts.

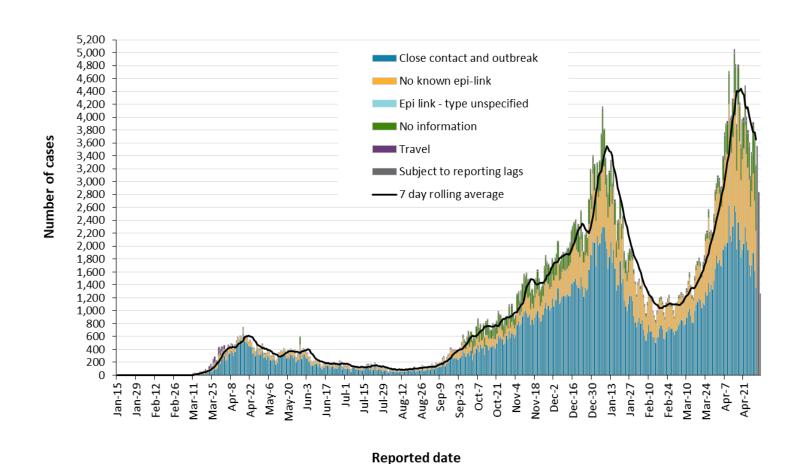
Table 3. Summary of recent confirmed cases of COVID-19 in long-term care homes: Ontario

Long-term care home cases	Change in cases May 2, 2021	Change in cases May 3, 2021	Cumulative case count as of May 3, 2021
Residents	12	5	15,174
Health care workers	2	8	6,977
Deaths among residents	1	9	3,928
Deaths among health care workers	0	0	10

Note: Information on how long-term care home residents and health care workers are identified is available in the <u>technical notes</u>. Also, the change in cases in these categories may represent existing case records that have been updated.

Time

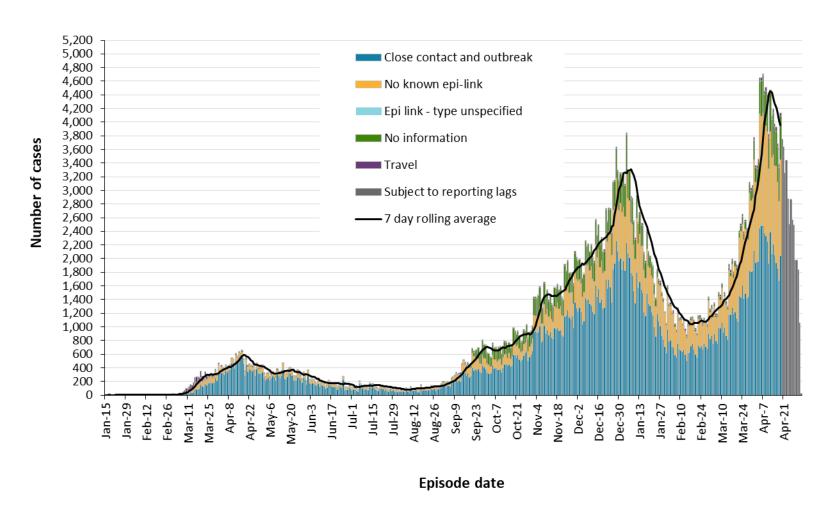
Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to May 3, 2021



Data Source: CCM

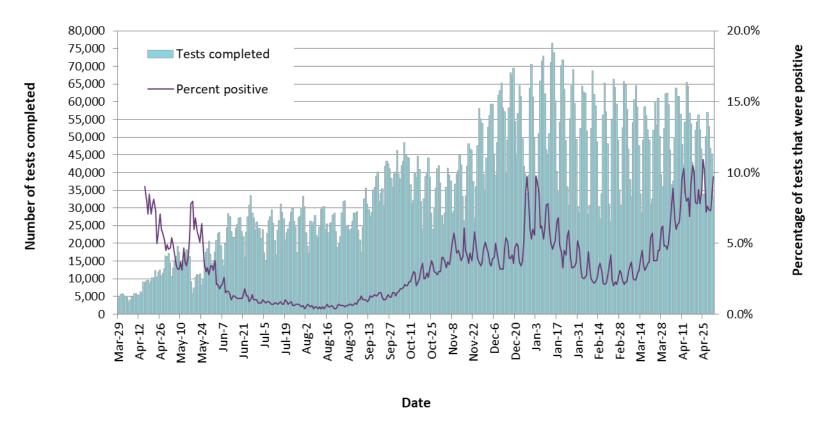
COVID-19 in Ontario: January 15, 2020 to May 3, 2021

Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to May 3, 2021



Note: Not all cases may have an episode date and those without one are not included in the figure. Episode date is defined and available in the <u>technical notes</u>. **Data Source**: CCM

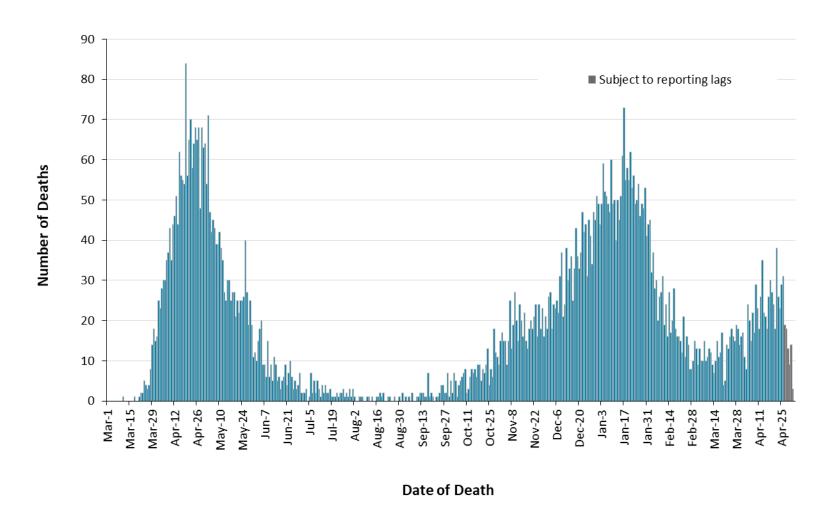
Figure 3. Number of COVID-19 tests completed and percent positivity: Ontario, March 29, 2020 to May 2, 2021



Note: The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive. **Data Source:** The Provincial COVID-19 Diagnostics Network, data reported by member microbiology laboratories.

Severity

Figure 4. Confirmed deaths among COVID-19 cases by date of death: Ontario, March 1, 2020 to May 3, 2021



Note: Cases without a death date are not included in the figure.

Data Source: CCM

COVID-19 in Ontario: January 15, 2020 to May 3, 2021

Table 4. Confirmed cases of COVID-19 by severity: Ontario

	Cumulative case count as of May 3, 2021	Percentage of all cases
Cumulative deaths reported (please note there may be a reporting delay for deaths)	8,143	1.7%
Deaths reported in ages: 19 and under	3	<0.1%
Deaths reported in ages: 20-39	54	<0.1%
Deaths reported in ages: 40-59	389	0.3%
Deaths reported in ages: 60-79	2,423	3.7%
Deaths reported in ages: 80 and over	5,273	22.2%
Ever in ICU	4,205	0.9%
Ever hospitalized	23,069	4.8%

Note: Not all cases have an age reported. Data corrections or updates can result in case records being removed and/or updated and may result in totals differing from past publicly reported case counts.

Geography

Table 5. Summary of recent confirmed cases of COVID-19 by public health unit and region: Ontario

Public Health Unit Name	Change in cases May 2, 2021	Change in cases May 3, 2021	Cumulative case count	Cumulative rate per 100,000 population
Northwestern Health Unit	10	7	955	1,089.3
Thunder Bay District Health Unit	5	2	3,112	2,075.2
TOTAL NORTH WEST	15	9	4,067	1,711.4
Algoma Public Health	1	1	339	296.2
North Bay Parry Sound District Health Unit	2	6	359	276.7
Porcupine Health Unit	11	3	646	774.2
Public Health Sudbury & Districts	6	7	1,943	976.3
Timiskaming Health Unit	0	4	188	575.1
TOTAL NORTH EAST	20	21	3,475	621.3
Ottawa Public Health	130	112	24,724	2,344.3
Eastern Ontario Health Unit	15	11	4,320	2,069.8
Hastings Prince Edward Public Health	5	2	947	562.0
Kingston, Frontenac and Lennox & Addington Public Health	12	19	1,314	617.7
Leeds, Grenville & Lanark District Health Unit	2	7	1,636	944.7
Renfrew County and District Health Unit	2	2	603	555.1
TOTAL EASTERN	166	153	33,544	1,741.3

Public Health Unit Name	Change in cases May 2, 2021	Change in cases May 3, 2021	Cumulative case count	Cumulative rate per 100,000 population
Durham Region Health Department	271	147	21,377	3,000.7
Haliburton, Kawartha, Pine Ridge District Health Unit	5	-9	1,661	879.1
Peel Public Health	714	653	94,821	5,904.3
Peterborough Public Health	9	5	1,242	839.3
Simcoe Muskoka District Health Unit	101	52	10,777	1,797.4
York Region Public Health	351	275	47,118	3,843.9
TOTAL CENTRAL EAST	1,451	1,123	176,996	3,950.2
Toronto Public Health	985	931	146,930	4,708.8
TOTAL TORONTO	985	931	146,930	4,708.8
Chatham-Kent Public Health	4	2	1,784	1,678.0
Grey Bruce Health Unit	6	4	1,181	695.2
Huron Perth Public Health	4	1	1,608	1,150.6
Lambton Public Health	5	6	3,265	2,493.1
Middlesex-London Health Unit	61	61	10,682	2,104.7
Southwestern Public Health	15	9	3,455	1,633.6
Windsor-Essex County Health Unit	47	34	15,583	3,668.1
TOTAL SOUTH WEST	142	117	37,558	2,221.3
Brant County Health Unit	17	25	3,231	2,081.8
City of Hamilton Public Health Services	194	128	17,789	3,004.1
Haldimand-Norfolk Health Unit	13	13	2,324	2,037.1

Public Health Unit Name	Change in cases May 2, 2021	Change in cases May 3, 2021	Cumulative case count	Cumulative rate per 100,000 population
Halton Region Public Health	159	101	15,005	2,423.7
Niagara Region Public Health	127	89	14,144	2,993.5
Region of Waterloo Public Health and Emergency Services	106	56	14,424	2,468.3
Wellington-Dufferin-Guelph Public Health	41	25	7,205	2,310.0
TOTAL CENTRAL WEST	657	437	74,122	2,601.4
TOTAL ONTARIO	3,436	2,791	476,692	3,206.9

Notes: Health units with data corrections or updates could result in records being removed from totals resulting in negative counts.

Outbreaks

Table 6. Summary of recent confirmed COVID-19 outbreaks reported in long-term care homes, retirement homes and hospitals by status: Ontario

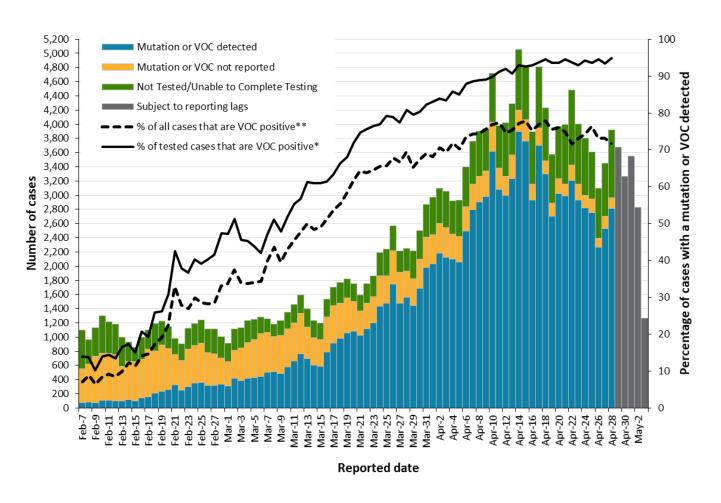
Institution type	Change in outbreaks May 2, 2021	Change in outbreaks May 3, 2021	Number of ongoing outbreaks	Cumulative number of outbreaks reported
Long-term care homes	3	-1	51	1,442
Retirement homes	0	4	15	848
Hospitals	2	0	39	534

Note: Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset date of first case, or if missing the outbreak reported date, or else if that is also missing, then the outbreak created date.

Variant COVID-19 Cases

The laboratory detection of a variant of concern (VOC) is a multi-step process. Samples that test positive for SARS-CoV-2 and have a cycle threshold (Ct) value ≤ 35 can be tested for mutations common to variants of concern. If positive for the mutation of interest these samples may then undergo genomic analyses to identify the VOC. VOC lineages may still be confirmed using genomic analysis despite specific S gene mutation(s) being documented as 'unable to complete' due to poor sequence quality at the genome position.

Figure 5. Number of confirmed COVID-19 cases and percent positive for mutations or VOCs: Ontario, February 7, 2021 to May 3, 2021



Note: Data used to calculate the number of cases tested for mutations common to VOCs or lineages using genomic analyses are obtained using information from the Laboratory object in CCM in addition to the data from the Investigation Subtype field. Therefore, comparisons to counts using only information from the Investigation Subtype field may not align. The percent of cases due to a VOC may be higher than described in this report. *The denominator includes only confirmed COVID-19 cases that were able to be tested for VOCs (e.g. those identified as 'Detected' or 'Not Detected'.

^{**}The denominator includes all confirmed COVID-19 cases, including those that were unable to be tested for VOCs (e.g. those identified as 'Detected', 'Not Detected' and 'Not Tested/Unable to Complete Testing'.

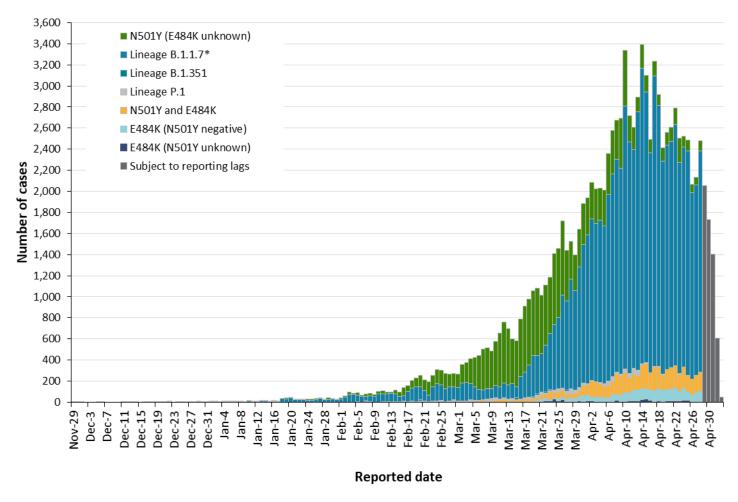
Table 7. Summary of confirmed COVID-19 cases with a mutation or VOC detected: Ontario

	Change in cases May 2, 2021	Change in cases May 3, 2021	Cumulative case count up to May 3, 2021
Variant of Concern			
Lineage B.1.1.7*	3,033	2,303	77,649
Lineage B.1.351	10	8	309
Lineage P.1	45	51	971
Mutations			
N501Y and E484K	116	92	6,013
N501Y (E484K unknown)**	-224	43	22,507
E484K (N501Y negative)	130	82	2,933
E484K (N501Y unknown)	2	-1	475

Note: Interpret the VOC and mutation trends with caution due to the varying time required to complete VOC testing and/or genomic analysis following the initial positive test for SARS-CoV-2. Due to the nature of the genomic analysis, test results may be completed in batches. Data corrections or updates can result in case records being removed and/or updated and may result in totals differing from past publicly reported case counts. Data for calculating the change in cases and the cumulative case counts uses data from the Investigation Subtype field only. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the data caveats section.

^{*}Includes all confirmed COVID-19 cases where lineage B.1.1.7 was identified by genomic analysis and those presumed to be B.1.1.7 based on positive N501Y and negative E484K mutation in the Investigation Subtype field **The category 'N501Y (E484K unknown)' mainly consists of results from before the introduction of the E484K test. Counts will shift from this category into a VOC lineage category as E484K tests or genomic analysis are completed.

Figure 6. Confirmed COVID-19 cases with a mutation or VOC detected by public health unit reported date: Ontario, November 29, 2020 to May 3, 2021



Note: Reported date is based on the date the case was reported, not the date that the VOC or mutation was identified. Further details on testing for variants of concern can be found in the <u>technical notes</u>. Interpret the VOC and mutation trends with caution due to the varying time required to complete testing and/or genomic analysis following the initial positive test for SARS-CoV-2. Data for calculating the change in cases and the cumulative case count uses data from the Investigation

Subtype field only. Data for cases with a B.1.1.7, B.1.351, and P.1 lineage detected or any of the mutations listed above are determined using the Investigation Subtype field only. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the <u>data caveats</u> section.

*Includes all confirmed COVID-19 cases where lineage B.1.1.7 was identified by genomic analysis and those presumed to be B.1.1.7 based on positive N501Y and negative E484K mutation. Starting March 22, 2021, specimens tested for the both the N501Y and E484K mutation, and if found to be positive for the N501Y mutation only, are not forwarded for further genomic analysis and presumed to be B.1.1.7.

Technical Notes

Data Sources

- The data for this report were based on information successfully extracted from the Public Health Case and Contact Management Solution (CCM) for all PHUs by PHO as of May 3, 2021 at 1 p.m. for cases reported in 2021 and as of May 3, 2021 at 9 a.m. for cases reported in 2020.
- CCM is a dynamic disease reporting system, which allows ongoing updates to data previously entered. As a result, data extracted from CCM represent a snapshot at the time of extraction and may differ from previous or subsequent reports.
- Ontario population projection data for 2020 were sourced from Ministry, IntelliHEALTH Ontario.
 Data were extracted on November 26, 2019.
- COVID-19 test data were based on information from The Provincial COVID-19 Diagnostics Network, reported by member microbiology laboratories.

Data Caveats

- The data only represent cases reported to public health units and recorded in CCM. As a result, all counts will be subject to varying degrees of underreporting due to a variety of factors, such as disease awareness and medical care seeking behaviours, which may depend on severity of illness, clinical practice, changes in laboratory testing, and reporting behaviours.
- Lags in CCM data entry due to weekend staffing may result in lower case counts than would otherwise be recorded.
- Only cases meeting the confirmed case classification as listed in the <u>MOH Case Definition</u> Coronavirus Disease (COVID-19) document
- Cases of confirmed reinfection, as defined in the provincial case definitions, are counted as unique investigations.
- Case classification information may be updated for individuals with a positive result issued from a point-of-care assays.
- The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.
- Reported date is the date the case was reported to the public health unit.
- Case episode date is based on an estimate of the best date of disease onset. This date is calculated based on either the date of symptom onset, specimen collection/test date, or the date reported to the public health unit.
- Resolved cases are determined only for COVID-19 cases that have not died. Cases that have died
 are considered fatal and not resolved. The following cases are classified as resolved:

- Cases that are reported as 'recovered' in CCM
- Cases that are not hospitalized and are 14 days past their episode date
- Cases that are currently hospitalized (no hospital end date entered) and have a status of
 'closed' in CCM (indicating public health unit follow-up is complete) and are 14 days past
 their symptom onset date or specimen collection date
- Hospitalization includes all cases for which a hospital admission date was reported at the time of
 data extraction. It includes cases that have been discharged from hospital as well as cases that
 are currently hospitalized. Emergency room visits are not included in the number of reported
 hospitalizations.
- ICU admission includes all cases for which an ICU admission date was reported at the time of data extraction. It is a subset of the count of hospitalized cases. It includes cases that have been treated or that are currently being treated in an ICU.
- Orientation of case counts by geography is based on the diagnosing health unit (DHU). DHU
 refers to the case's public health unit of residence at the time of illness onset and not
 necessarily the location of exposure. Cases for which the DHU was reported as MOH-PHO (to
 signify a case that is not a resident of Ontario) have been excluded from the analyses.
- Likely source of acquisition is determined by examining the epidemiologic link and epidemiologic link status fields in CCM. If no epidemiologic link is identified in those fields the risk factor fields are examined to determine whether a case travelled, was associated with a confirmed outbreak, was a contact of a case, had no known epidemiological link (sporadic community transmission) or was reported to have an unknown source/no information was reported. Some cases may have no information reported if the case is untraceable, was lost to follow-up or referred to FNIHB. Cases with multiple risk factors were assigned to a single likely acquisition source group which was determined hierarchically in the following order:
 - For cases with an episode date on or after April 1, 2020: Outbreak-associated > close contact of a confirmed case > travel > no known epidemiological link > information missing or unknown
 - For cases with an episode date before April 1, 2020: Travel > outbreak-associated > close contact of a confirmed case > no known epidemiological link > information missing or unknown
- Deaths are determined by using the outcome field in CCM. Any case marked 'Fatal' is included in the deaths data. The CCM field Type of Death is not used to further categorize the data.
 - The date of death is determined using the outcome date field for cases marked as 'Fatal' in the outcome field.
- COVID-19 cases from CCM for which the Classification and/or Disposition was reported as ENTERED IN ERROR, DOES NOT MEET DEFINITION, IGNORE, DUPLICATE or any variation on these values have been excluded. The provincial case count for COVID-19 may include some duplicate records, if these records were not identified and resolved.
- Ongoing outbreaks include all outbreaks that are 'Open' in CCM without a 'Declared Over Date' recorded, or where the outbreak started more than five months ago, even for outbreaks where

the Outbreak Status value selected in CCM is 'OPEN'. The start of the outbreak is determined by the onset date of first case, or if missing the outbreak reported date, or else if that is also missing, then the outbreak created date.

- 'Long-term care home residents' includes cases that reported 'Yes' to the risk factor 'Resident of a long-term care home'; or 'Yes' to the risk factor 'Resident of nursing home or other chronic care facility' and reported to be part of an outbreak assigned as a long-term care home (via the Outbreak number or case comments field); or were reported to be part of an outbreak assigned as a long-term care home (via the outbreak number or case comments field) with an age over 70 years and did not report 'No' to the risk factors 'Resident of long-term care home' or 'Resident of nursing home or other chronic care facility'. 'Long-term care home residents' excludes cases that reported 'Yes' to any of the health care worker occupational risk factors.
- The 'health care workers' variable includes cases that reported 'Yes' to any of the occupation of health care worker, doctor, nurse, dentist, dental hygienist, midwife, other medical technicians, personal support worker, respiratory therapist, first responder.
- 'Health care workers associated with long-term care outbreaks' includes 'health care workers'
 reported to be part of an outbreak assigned as a long-term care home (via the outbreak number
 or case comments field). Excludes cases that reported 'Yes' to risk factors 'Resident of long-term
 care home' or 'Resident of nursing home or other chronic care facility' and 'Yes' to the
 calculated 'health care workers' variable.
- Percent change is calculated by taking the difference between the current period (i.e., daily count or sum of the daily count over a 7-day period) and previous period (i.e., daily count or sum of the daily count over a 7-day period), divided by the previous period.
- PANGO lineage B.1.1.7: This lineage was first detected in England in September, 2020. Early
 evidence suggests that the N501Y mutation may increase SARS-CoV-2 transmissibility. The
 PANGO lineage B.1.1.7 is assigned to genome sequences with at least 5 of the 17 defining
 B.1.1.7 SNPs.
- PANGO lineage B.1.351 (also known as 501Y.V2): This lineage was first detected October, 2020 in South Africa and has several mutations of concern, including spike (S) gene: N501Y, K417N, and E484K. Early evidence suggests that these mutations may increase SARS-CoV-2 transmissibility and decrease vaccine efficacy. The PANGO lineage B.1.351 will be assigned to genome sequences at least 5 of the 9 defining B.1.351 SNPs.
- PANGO lineage P.1 (also known as 501Y.V3): This lineage was first detected January, 2021 in Brazil and has several mutations of concern, including spike (S) gene N501Y, K417T, and E484K. Early evidence suggests that these mutations may increase SARS-CoV-2 transmissibility and decrease vaccine efficacy. The PANGO lineage P.1 is assigned to genome sequences with more than 10 of the 17 defining P.1 SNPs.
- Public Health Ontario conducts testing and genomic analyses for SARS-CoV-2 positive specimens
 using the criteria outlined here: https://www.publichealthontario.ca/en/laboratory-services/test-information-index/covid-19-voc
- Changes to the VOC testing algorithm may occur over time and trends should be interpreted with caution. Since February 3, 2021 all PCR positive SARS-Co-V-2 specimens with CT values ≤ 35 are tested for a N501Y mutation. Starting March 22, 2021, these specimens are tested for the E484K mutation as well. Specimens that are positive for the N501Y mutation only are not being

- forwarded for further genomic analysis. Specimens that are E484K positive (with or without N501Y) are forwarded for genomic analysis.
- The laboratory detection of a variant of concern is a multi-step process. Samples that test positive for SARS-CoV-2 and have a cycle threshold (Ct) value ≤ 35 can be tested for mutations common to variants of concern. If positive for the mutation of interest these samples may then undergo genomic analyses to identify the VOC. VOC lineages may still be confirmed using genomic analysis despite specific S gene mutation(s) being documented as 'unable to complete' due to poor sequence quality at the genome position.
- VOC testing data are analyzed for cases with a reported date on or after February 07, 2021. VOC testing data are based on CCM information reported within the laboratory object for select Logical Observation Identifiers Names and Codes (LOINC) and supplemented with information from the Investigation Subtype field. A confirmed Case Investigation is assigned a VOC test value (e.g., VOC test detected, VOC test not detected) based on the following hierarchy:
 - If multiple laboratory results are identified, a VOC test value is assigned based on the following hierarchy: Detected > Not Detected > Unable to complete
 - If a laboratory result is 'Not Detected' or 'Unable to complete', but data on the Investigation Subtype field is listed as a lineage or mutation common to a VOC, then the VOC test value is set to 'Detected'
- If a VOC is identified through genomic analysis cases initially classified as a mutation may be updated and moved to the appropriate lineage (B.1.1.7, B.1.351 and P.1)
- LOINCs are a set of internationally used result description codes. In the absence of a standard LOINC, Ontario Health can create local result codes, which are identified with an 'XON' prefix.
 LOINCs incorporate details of the result value (e.g. test method, target detected - such as IgG, DNA, isolate etc.) and are unique to each result.
- VOC testing data in this report are assigned on a per case basis. Multiple laboratory results may be associated to a single case investigation, but for analysis purposes are only counted once.
 - The percent of cases that test VOC positive is calculated by taking the number of VOC test positive, divided by the total number of confirmed COVID-19 cases for a given reported date.
- The VOC percent positive may be higher than described in this report. While all confirmed COVID-19 cases are included in the denominator, not all cases were able to be tested for VOCs. As testing algorithms change, the VOC percent positivity may not be reflective of the exact number of COVID-19 cases due to VOCs
- Only CCM case investigations with a CONFIRMED classification have their laboratory records with VOC testing information included in the percent positivity calculations

Appendix A

Table A1. Weekly rates of confirmed COVID-19 cases per 100,000 population over recent rolling 7-day periods, by reported date and public health unit: Ontario, April 18 to April 30, 2021

Public Health Unit Name	Apr 18 to Apr 24	Apr 19 to Apr 25	Apr 20 to Apr 26	Apr 21 to Apr 27	Apr 22 to Apr 28	Apr 23 to Apr 29	Apr 24 to Apr 30	% change from Apr 18 - Apr 24 to Apr 24 - Apr 30
NORTH WEST								
Northwestern Health Unit	78.7	73.0	76.4	82.1	81.0	74.1	74.1	-5.8%
Thunder Bay District Health Unit	44.0	44.0	36.7	35.3	36.7	25.3	22.0	-50.0%
NORTH EAST								
Algoma Public Health	21.0	20.1	17.5	15.7	18.4	16.6	18.4	-12.4%
North Bay Parry Sound District Health Unit	7.7	6.9	10.8	11.6	11.6	10.8	11.6	+50.6%
Porcupine Health Unit	98.3	82.7	88.7	85.1	91.1	87.5	82.7	-15.9%
Public Health Sudbury & Districts	27.6	26.6	27.6	25.6	25.1	30.6	30.6	+10.9%
Timiskaming Health Unit	82.6	91.8	76.5	73.4	73.4	76.5	67.3	-18.5%
EASTERN								
Ottawa Public Health	144.5	132.6	130.4	130.7	127.6	120.0	119.2	-17.5%
Eastern Ontario Health Unit	98.2	90.1	87.7	75.2	68.0	69.0	59.9	-39.0%
Hastings Prince Edward Public Health	39.8	38.0	38.0	38.0	45.7	46.9	46.9	+17.8%
Kingston, Frontenac and Lennox & Addington Public Health	37.1	31.0	33.4	35.7	36.7	36.2	37.6	+1.3%

Public Health Unit Name	Apr 18 to Apr 24	Apr 19 to Apr 25	Apr 20 to Apr 26	Apr 21 to Apr 27	Apr 22 to Apr 28	Apr 23 to Apr 29	Apr 24 to Apr 30	% change from Apr 18 - Apr 24 to Apr 24 - Apr 30
Leeds, Grenville & Lanark District Health Unit	39.8	36.4	38.7	39.3	41.0	38.1	32.9	-17.3%
Renfrew County and District Health Unit	29.5	40.5	41.4	44.2	44.2	45.1	42.3	+43.4%
CENTRAL EAST								
Durham Region Health Department	224.2	211.7	210.3	213.1	215.7	201.9	203.5	-9.2%
Haliburton, Kawartha, Pine Ridge District Health Unit	48.7	46.6	43.4	46.6	48.2	43.4	41.8	-14.2%
Peel Public Health	373.8	369.7	378.3	377.6	374.2	360.0	346.3	-7.4%
Peterborough Public Health	46.0	43.9	46.0	45.3	46.6	46.6	45.3	-1.5%
Simcoe Muskoka District Health Unit	108.7	106.9	100.7	100.6	99.6	96.1	92.7	-14.7%
York Region Public Health	235.4	227.8	229.9	223.6	222.3	205.0	198.4	-15.7%
TORONTO								
Toronto Public Health	261.8	258.7	249.6	242.5	244.2	247.3	239.2	-8.6%
SOUTH WEST								
Chatham-Kent Public Health	31.0	27.3	30.1	33.9	29.2	27.3	28.2	-9.0%
Grey Bruce Health Unit	41.2	36.5	35.3	35.3	35.3	30.0	28.8	-30.1%
Huron Perth Public Health	22.2	22.2	21.5	22.9	25.8	22.9	22.2	0.0%
Lambton Public Health	56.5	55.0	55.7	57.3	53.4	49.6	51.2	-9.4%
Middlesex-London Health Unit	131.6	136.5	130.6	134.6	139.1	128.7	135.6	+3.0%

Public Health Unit Name	Apr 18 to Apr 24	Apr 19 to Apr 25	Apr 20 to Apr 26	Apr 21 to Apr 27	Apr 22 to Apr 28	Apr 23 to Apr 29	Apr 24 to Apr 30	% change from Apr 18 - Apr 24 to Apr 24 - Apr 30
Southwestern Public Health	63.8	66.7	63.8	61.9	59.6	60.0	55.8	-12.5%
Windsor-Essex County Health Unit	92.3	94.6	87.6	86.6	88.0	82.6	83.3	-9.8%
CENTRAL WEST								
Brant County Health Unit	182.3	172.7	156.6	143.0	128.9	120.5	128.9	-29.3%
City of Hamilton Public Health Services	194.7	186.9	182.2	167.2	171.1	173.9	188.5	-3.2%
Haldimand-Norfolk Health Unit	154.3	140.3	150.8	142.9	141.1	140.3	128.0	-17.0%
Halton Region Public Health	156.0	156.4	149.9	147.5	148.9	149.6	145.7	-6.6%
Niagara Region Public Health	251.4	255.5	243.8	228.6	216.3	198.9	167.6	-33.3%
Region of Waterloo Public Health and Emergency Services	115.0	112.8	97.4	97.9	95.7	90.4	78.2	-32.0%
Wellington-Dufferin- Guelph Public Health	142.7	127.9	127.9	119.6	115.4	103.9	105.2	-26.3%
TOTAL ONTARIO	188.8	184.6	181.3	177.9	177.4	171.9	167.0	-11.5%

Note: Rates are based on the sum of the daily case counts during the date ranges specified in each column.

Table A2. Summary of confirmed COVID-19 cases with a mutation or VOC by public health unit: Ontario as of May 3, 2021

Public Health Unit Name	Cumulative count for Lineage B.1.1.7*	Cumulative count for Lineage B.1.351	Cumulative count for Lineage P.1	Cumulative count for mutations**
Algoma Public Health	43	0	0	14
Brant County Health Unit	368	1	9	375
Chatham-Kent Public Health	50	4	1	114
City of Hamilton Public Health Services	3,131	2	3	1,023
Durham Region Health Department	6,640	8	47	1,016
Eastern Ontario Health Unit	540	6	0	308
Grey Bruce Health Unit	220	0	2	41
Haldimand-Norfolk Health Unit	207	0	3	293
Haliburton, Kawartha, Pine Ridge District Health Unit	195	0	4	200
Halton Region Public Health	3,419	6	29	519
Hastings Prince Edward Public Health	15	0	1	315
Huron Perth Public Health	58	0	0	57
Kingston, Frontenac and Lennox & Addington Public Health	227	0	14	133
Lambton Public Health	279	0	1	81
Leeds, Grenville & Lanark District Health Unit	227	3	0	45
Middlesex-London Health Unit	1,613	0	8	274
Niagara Region Public Health	2,140	0	1	836

Public Health Unit Name	Cumulative count for Lineage B.1.1.7*	Cumulative count for Lineage B.1.351	Cumulative count for Lineage P.1	Cumulative count for mutations**
North Bay Parry Sound District Health Unit	58	27	0	13
Northwestern Health Unit	24	0	1	24
Ottawa Public Health	3,736	20	0	1,139
Peel Public Health	17,902	42	245	5,022
Peterborough Public Health	304	0	0	161
Porcupine Health Unit	84	2	0	9
Public Health Sudbury & Districts	384	0	0	434
Region of Waterloo Public Health and Emergency Services	1,823	2	7	284
Renfrew County and District Health Unit	114	1	0	22
Simcoe Muskoka District Health Unit	2,425	10	47	844
Southwestern Public Health	431	0	2	69
Thunder Bay District Health Unit	1	0	0	40
Timiskaming Health Unit	60	1	0	2
Toronto Public Health	17,836	156	423	15,347
Wellington-Dufferin-Guelph Public Health	1,453	0	8	176
Windsor-Essex County Health Unit	888	2	3	87
York Region Public Health	10,754	16	112	2,611
TOTAL ONTARIO	77,649	309	971	31,928

Note: Interpret the VOC and mutation trends with caution due to the varying time required to complete VOC testing and/or genomic analysis following the initial positive test for SARS-CoV-2. Due to the nature of the genomic analysis, test results may be completed in batches. Data corrections or updates can result in case records being removed and/or updated and may result in totals differing from past publicly reported case counts. Data for calculating the change in cases and the cumulative case count uses data from the Investigation Subtype field only. Changes to the VOC testing algorithm may impact counts and trends. Further details can be found in the data caveats section.

*Includes all confirmed COVID-19 cases where lineage B.1.1.7 was identified by genomic analysis and those presumed to be B.1.1.7 based on positive N501Y and negative E484K mutation.

**Mutations includes all confirmed COVID-19 cases with the following mutations detected, reported from the Investigation Subtype field: N501Y and E484K, N501Y (E484K unknown), E484K (N501Y negative), E484K (N501Y unknown).

If a VOC is identified through genomic analysis, the change in cases and/or cumulative case counts for mutations will fluctuate as the case is moved to one of the listed lineages.

Table A3. Weekly percent positivity for cases tested for mutations or VOCs over recent rolling 7-day periods, by reported date and public health unit: Ontario, April 16 to April 28, 2021

Public Health Unit Name	April 16 to April 22	April 17 to April 23	April 18 to April 24	April 19 to April 25	April 20 to April 26	April 21 to April 27	April 22 to April 28
Algoma Public Health	62.5	60.9	66.7	65.2	70.0	77.8	61.9
Brant County Health Unit	73.0	71.7	72.1	72.0	72.8	70.3	73.5
Chatham-Kent Public Health	78.4	79.5	87.9	82.8	84.4	86.1	87.1
City of Hamilton Public Health Services	77.2	76.8	77.5	77.1	75.8	75.1	74.3
Durham Region Health Department	82.9	82.6	82.2	81.6	81.6	83.1	83.5
Eastern Ontario Health Unit	53.4	50.0	44.4	43.1	44.3	35.7	37.3
Grey Bruce Health Unit	60.5	58.4	61.4	53.2	53.3	61.7	63.3
Haldimand-Norfolk Health Unit	71.6	71.8	71.0	70.6	70.9	69.9	68.9
Haliburton, Kawartha, Pine Ridge District Health Unit	64.6	63.4	72.8	70.5	67.1	69.3	71.4
Halton Region Public Health	75.8	77.9	77.5	76.9	79.3	77.9	77.8
Hastings Prince Edward Public Health	79.7	75.9	80.6	81.3	82.8	79.7	77.9
Huron Perth Public Health	75.0	75.8	83.9	87.1	86.7	78.1	80.6
Kingston, Frontenac and Lennox & Addington Public Health	83.8	79.4	75.9	75.8	73.2	71.1	70.5
Lambton Public Health	76.6	75.6	73.0	76.4	76.7	64.0	58.6
Leeds, Grenville & Lanark District Health Unit	64.5	55.7	53.6	50.8	50.7	42.6	38.0

Public Health Unit Name	April 16 to April 22	April 17 to April 23	April 18 to April 24	April 19 to April 25	April 20 to April 26	April 21 to April 27	April 22 to April 28
Middlesex-London Health Unit	71.9	74.2	74.4	72.6	73.3	74.5	73.2
Niagara Region Public Health	63.4	61.7	59.4	58.5	51.5	48.4	41.6
North Bay Parry Sound District Health Unit	81.8	75.0	60.0	33.3	42.9	40.0	20.0
Northwestern Health Unit	4.8	4.5	4.3	4.7	4.5	6.9	8.5
Ottawa Public Health	57.3	54.0	48.0	44.6	43.1	41.8	40.9
Peel Public Health	74.4	73.0	72.2	72.3	72.4	72.2	70.7
Peterborough Public Health	75.7	75.0	73.5	70.8	75.0	76.1	76.8
Porcupine Health Unit	74.1	71.3	72.0	76.8	79.7	81.7	81.6
Public Health Sudbury & Districts	85.7	88.2	89.1	90.6	87.3	88.2	86.0
Region of Waterloo Public Health and Emergency Services	72.9	69.9	70.1	70.1	67.0	67.0	66.9
Renfrew County and District Health Unit	56.0	55.6	53.1	59.1	64.4	79.2	81.3
Simcoe Muskoka District Health Unit	80.3	79.9	80.1	80.5	79.5	80.1	79.2
Southwestern Public Health	68.0	68.1	71.9	74.5	75.6	75.6	75.4
Thunder Bay District Health Unit	18.6	23.4	22.7	24.2	30.9	30.2	36.4
Timiskaming Health Unit	78.9	75.0	77.8	80.0	88.0	83.3	83.3
Toronto Public Health	79.8	80.5	81.1	81.2	81.3	80.9	81.6

Public Health Unit Name	April 16 to April 22	April 17 to April 23	April 18 to April 24	April 19 to April 25	April 20 to April 26	April 21 to April 27	April 22 to April 28
Wellington-Dufferin- Guelph Public Health	75.4	76.5	76.4	76.9	77.9	76.1	70.8
Windsor-Essex County Health Unit	63.3	66.8	68.9	70.1	73.4	75.5	71.9
York Region Public Health	84.1	83.8	82.7	82.0	81.7	81.4	81.6
TOTAL ONTARIO	75.4	75.1	74.7	74.4	74.2	73.7	73.3

Note: Data for calculating the number of cases tested for mutations common to VOCs or lineages using genomic analyses are obtained using information from the Laboratory object in CCM in addition to the data from the Investigation subtype field. Therefore, comparisons to counts using only information from the Investigation Subtype field may not align. The percent of cases due to a VOC may be higher than described in this report. While all confirmed COVID-19 cases are included in the denominator, not all cases were able to be tested for VOCs. Percent positivity is based on the sum of the daily cases that test positive divided by the number of cases reported during the date ranges specified in each column.

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